

WHAT IS CLAIMED IS:

Sub A 1. An elongated pump rod for use in a pump rod string for a downhole well pump, said pump rod including a generally cylindrical rod section extending over a major portion of the length of said pump rod, said pump rod including means formed thereon for coupling said pump rod to said pump rod string, and an elongated sleeve extending over said cylindrical rod section and secured in engagement therewith, said sleeve being formed of a wear resistant polymer material.

2. The pump rod set forth in Claim 1 wherein:

said sleeve is formed of a polymer material having a coefficient of friction with respect to a well tubing in which said pump rod is disposed which is less than the material of said pump rod.

3. The pump rod set forth in Claim 1 wherein:

said sleeve is formed of one of high density polyethylene and ultra high density polyethylene.

3/4. The pump rod set forth in Claim 1 wherein:

said sleeve has an inner diameter in a relaxed condition slightly less than the outer diameter of said cylindrical rod section.

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The pump rod set forth in Claim 1 wherein:

said sleeve has an inner diameter in a relaxed condition substantially the same as the outer diameter of said cylindrical rod section.

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~~6. The pump rod set forth in Claim 1 wherein:~~

~~said sleeve is formed of a material having a coefficient of thermal expansion which is substantially the same as the coefficient of thermal expansion of alloy steel.~~

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A method for fabricating an elongated pump rod for a downhole well pump wherein said pump rod includes a sleeve of polymer material extending over a major portion of the length of said pump rod, said method comprising the steps of:

5 providing an apparatus for supporting said pump rod and said sleeve, said apparatus including a linearly extensible and retractable actuator connected to one of said pump rod and said sleeve; and

operating said actuator to move said sleeve relative
10 to said pump rod into sleeved relationship thereover.

12. The method set forth in Claim 6 including the step of:
supporting said pump rod at one end by said actuator
and at an intermediate point between said one end and the
opposite end of said pump rod.

13. The method set forth in Claim 7 including the step of:
supporting said pump rod intermediate the ends thereof
on a support which is movable relative to said pump rod and
actuator in response to sleeving said sleeve over said pump rod,
5 and engaging said pump rod at one end thereof with an abutment
to hold said pump rod stationary with respect to said sleeve
while said sleeve is being pulled over said pump rod at an
opposite end of said pump rod and in sleeved relationship
thereto.

14. The method set forth in Claim 8 including the step of:
providing an expander mandrel connected to one end of
said pump rod; and

inserting said expander mandrel into one end of said
5 sleeve while moving said sleeve relative to said pump rod to
elastically deform said sleeve for extending said sleeve over a
major portion of said length of said pump rod and in sleeved
relationship thereto.

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~~13~~. An elongated sinkerbar for use in a pump rod string for a downhole well pump, said sinkerbar including opposed end parts adapted for coupling said sinkerbar into said pump rod string, an elevator section of said sinkerbar adjacent one of said end parts and an elongated rod section having a diameter greater than said elevator section and said end parts, said elongated rod section having a sleeve of polymer material extending thereover and secured thereto by a forcible fit between the outer surface of said rod section and an inner surface of said sleeve, said sinkerbar being formed by an apparatus for supporting said sinkerbar and said sleeve and including a linearly extensible and retractable actuator connected to one of said sinkerbar and said sleeve and whereby said sinkerbar is formed by operating said actuator to move said sleeve relative to said rod section into sleeved relationship thereover.

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~~14~~. The sinkerbar set forth in Claim ~~13~~¹⁴ wherein:

said sleeve is formed of one of high density polyethylene and ultra high density polyethylene.

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~~15~~. The sinkerbar set forth in Claim ~~14~~¹⁵ wherein:

said sleeve has an inner diameter in a relaxed condition substantially the same as the outer diameter of said rod section.

